

UNITED STAT: PEPARTMENT OF COMMERCE Patent and Trau, mark Office Address: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231

ATTY, DOCKET NO. FIRST NAMED APPLICANT FILING DATE APPLICATION NUMBER GC527 ESTELL 04/15/98 09/060,872 EXAMINER HM12/0112

GENENCOR INTERNATIONAL INCORPORATED 925 PAGE MILL ROAD PALO ALTO CA 94304-1013

SAUNDERS, D ART UNIT PAPER NUMBER 1644

DATE MAILED: 01/12/00

OFFICE ACTION SUMMARY	
0120199	
Responsive to communication(s) filed on 9 29 99	
This action is FINAL.	
Since this application is in condition for allowance except for formal matters, pr	rosecution as to the merits is closed in
accordance with the practice under Ex parte Quayle, 1935 D.C. 11, 455 C.C.	
shortened statutory period for response to this action is set to expire	month(s), or thirty days, and within the period for response will cause be obtained under the provisions of 37 CFR
isposition of Claims	
Of the above, claim(s) 1 \(\) 1 \(\) 1 \(\) 1 \(\) 1 \(\) 1 \(\)	is/are pending in the application.
Of the above, claim(s) 1-12 15-16	is/are withdrawn from consideration.
4 Claim(s) 13-17	in/ara chierted to
Claim(s)	are subject to restriction or election requiremen
Claim(s)	
See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948. The drawing(s) filed onis/ar The proposed drawing correction, filed on The specification is objected to by the Examiner. The oath or declaration is objected to by the Examiner.	re objected to by the Examineris
— Priority under 35 U.S.C. § 119	D(a) (d)
Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119	
☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority doc	cuments have been
received. received in Application No. (Series Code/Serial Number)	
received in this national stage application from the International Bureau	
*Certified copies not received:	
Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §	119(e).
Attachment(s)	
Notice of Reference Cited, PTO-892	
Information Disclosure Statement(s), PTO-1449, Paper No(s).	_
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☐ Interview Summary, PTO-413	
☐ Interview Summary, PTO-413 ☐ Notice of Draftperson's Patent Drawing Review, PTO-948	
☐ Interview Summary, PTO-413 ☐ Notice of Draftperson's Patent Drawing Review, PTO-948 ☐ Notice of Informal Patent Application, PTO-152	LOWING PAGES
☐ Interview Summary, PTO-413 ☐ Notice of Draftperson's Patent Drawing Review, PTO-948 ☐ Notice of Informal Patent Application, PTO-152 —SEE OFFICE ACTION ON THE FOLI	LOWING PAGES * U.S. GPO: 1998-40

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The claims pending are 1-16. Claims 13-14 are under examination.

The amendment of 9/29/99 (Paper 13) has entered no new matter.

The requirement for applicant to comply with 37 CFR 1.821-1.825 remains. Applicant's response of Paper 13 has indicated that a sequence listing was filed concurrently. None can be found in this application. The concurrently filed "Request for use of an Identical..." (Paper 14) refers to a CRF filed in application 09/255,502. This request is confusing because it refers to this CRF as that of the "first-filed patent application". It is noted 09/255,502 was filed after the instant application. Also the "Request..." is in error by stating that "the Sequence listing was originally filed in the present patent application". None was filed originally or at any other time. Therefore no statement of identity can be properly made.

Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 14 is confusing in relationship to amended base claim 13. The base claim was amended to require a modification in step b) that "induces less than a substantially equal" proliferation of T-cells relative to a baseline. Claim 14 recites, in steps b) and c), "a lesser allergic response from T-cells". Is this "allergic response" the same as, or something different from the "proliferation of T-cells" measured in base claim 13? If the former, then claim 14 is inconsistent with base claim 13, since "a lesser allergic response" (claim 14) is clearly of a scope than "less than or substantially equal the base line" (claim 13).

Completed Completed

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The previously stated prior art rejection over King (5,593,877) has been withdrawn, since King does not teach modified peptides/proteins identified in terms of a proliferative response of the T-cells thereto.

Claims 13-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Garman et al (5,820,862).

This rejection is maintained for reasons of record and for reasons explained below, in light of applicant's urgings of Paper 13.

Applicant has urged that claims 13-14 require that the modified protein not be recognized --i.e. does not bind to a T-cell receptor that binds the non-modified epitope/protein. Applicant urges that page 5, line 30 supports. The examiner cannot find this teaching at page 5, line 30. In any event, this limitation is not a feature of the instant claims and, thus, will be given no weight.

Applicant has urged that Janeway defines T-cell anergy as requiring binding of peptides to T-cells without the context of class II MHC. The Janeway reference was not provided, and the examiner will give it no evidentiary weight since the term "anergy" merely means "imp red or absent ability to react to specific antigens" (Taber's cyclopedic medical Dictionary), and the definition given by Janeway (after the instant filing date) is merely one interpretation of the mechanism underlying anergy.

In any event, it can be seen that Garman et al define peptides that have been modified to induce anergy as those which "bind MHC proteins without the ability to induce a strong proliferative response, or possibly any proliferative response" (col.20, lines 27-30). This

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teaching is consistent with what applicant's claim language, in fact, is by way of the added limitation to claim 13, step b).

Applicant's urgings of Paper 13 are unconvincing because the arguments do not pertain to the limitations recited in the claims or to the explicit teaching of the reference.

Applicant has amended claim 13 to recite limitations regarding proliferation of T-cells to the modified protein in step (b). Since applicant may consider the quantitative relationships in this limitation to be of significance, the examiner is stating the following new ground of rejection.

Claims 13-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Fehlner et al (Jour. Immunol. 146, 799,1991).

Fehlner et al show identification of a T-cell epitope corresponding to residues 8-19 of melittin-- an allergen in bee venom. See paragraph spanning pages 801-802. This corresponds to instant step (a).

Fehlner et al then identify modified T-cell epitope peptides which do not induce proliferation of T-cells. See Figures 2 and 5. Note that peptides 7-21 (L12,Q14) and 7-21 (L12,K14) are inactive. See Figure 5 and paragraph spanning cols. 1-2 of page 803. The inactivity of these peptides in stimulating T-cell proliferation is consistent with the quantitative limitations now recited in claim 13, step (b). The substitutions in the peptide 7-21 (L12,K14) are considered consistent with the limitations of claim 14, part (c), since Figure 5 indicates that this peptide had essentially the same percent helical structure as the unmodified peptide 7-21.

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Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

In any response applicant should cancel claims 1-12 and 15-16, non-elected without traverse.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David A. Saunders whose telephone number is (703) 308-3976. The examiner can normally be reached on M-F from 8:15 to 4:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Chan, can be reached on (703) 308-3973. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-4242.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

DAVID SAUNDERS
PRIMARY EXAMINER
ART UNIT 182 / 644

Saunders/sg

January 10, 2000